



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/596,476

06/14/2006

Dong Hoi Kim

56587.23

7029

27128

7590

06/04/2009

HUSCH BLACKWELL SANDERS LLP

720 OLIVE STREET

SUITE 2400

ST. LOUIS, MO 63101

EXAMINER

OWYANG, MICHELLE N

ART UNIT

PAPER NUMBER

2168

NOTIFICATION DATE

DELIVERY MODE

06/04/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto-sl@huschblackwell.com

Office Action Summary	Application No. 10/596,476	Applicant(s) KIM ET AL.	
	Examiner MICHELLE OWYANG	Art Unit 2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-24,30-33 and 35-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-24,30-33 and 35-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2168

DETAILED ACTION

1. This action is responsive to the Applicant's amendment and remarks filed on 3/10/2009, with claims 21, 30, 35 amended, and claims 25-29, 34, 38 cancelled.

Claims 21-24, 30-33, 35-37 are pending in this application.

Claim Objections

2. In view of the claim amendment filed on 3/10/2009, the claim objections previously made are hereby withdrawn.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 21-24, 30-33, 35-37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claimed subject matter of "independent of statistical data of previous searches", recited in claims 21, 30, was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Any claim not specifically addressed above is being rejected as incorporating the deficiencies of a claim upon which it depends.

Art Unit: 2168

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 21-24, 30-33, 35-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 21 (lines 16-19), claim 30 (lines 8-11), claim 35 (lines 11-14), the recited claimed features of “associating a representative keyword included in a first keyword group associated with a first representative category, with a second keyword group associated with a second representative category to reflect current societal interest, independent of statistical data of previous searches” are not clearly understood rendering the claim indefinite. It appears that the cited claimed feature of “independent of statistical data of previously searches” is conflicting with other claim cited features, particularly “means for searching the keyword database for a keyword group associated with the searched representative category and data indicative of a number of searches made using one or more representative keywords or other keywords associated with the respective representative keywords included in the searched keyword group”, recited in claims 21 (lines 29-32), claim 30 (lines 22-25), and claim 35 (lines 25-28), because one ordinary skilled in the art would associate “statistical data of previous searches” with “data indicative of a number of searches made”. Secondly, since the associated “second keyword group associated with a second representative category to reflect current

Art Unit: 2168

societal interest” is not based on historical “statistical data”, it is unclear what is the association based on to reflect current social interest.

Any claim not specifically addressed above is being rejected as incorporating the deficiencies of a claim upon which it depends.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 21-24, 30-33, 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chandrasekar et al (Pub US 2003/0014403 A1), hereinafter Chandrasekar, in view of Yoo

Art Unit: 2168

et al (Patent No. 7,146,416 B1), hereinafter Yoo, and further in view of Piscitello et al. (Patent No US 7,401,072 B2), hereinafter Piscitello.

Yoo is cited by the Examiner in the previous office action.

With respect to claim 21, Chandrasekar discloses a search service system (*system for refining a user query, [0011], lines 1-2*) comprising:

at least one memory having program instructions (*memory, Fig 13, 14*) and databases (*search engine database, Fig 12, 1200*), the databases including:

a category classification database including at least one representative category associated with one or more predetermined keyword groups (*key phrases, such as tiger & tigr, are associated with concepts, such as Tiger Woods and animal tiger, [0013], [0035], lines 5- 9; key phrases are interpreted as keyword groups, concept is interpreted as category, and it would have been obvious to interpret that the concepts are stored in a concept database in the search engine database*), each of the predetermined keyword groups including one or more representative keywords and other keywords associated with the respective representative keywords (*key phrases include one or more words are phrases of words, [0017], lines 2-4, [0035], lines 10-13, [0036], lines 1-6; some words in the key phrases, such as Britney, can be interpreted as representative keyword*);

a keyword database including at least one predetermined keyword group (*key phrases associated with the concept, [0035], lines 6-13, [0036]; the key phrases are interpreted as the keyword group and it would have been obvious to interpret that key phrases are stored in database*) and data indicative of a number of searches made using one or more representative

Art Unit: 2168

keywords or other keywords associated with the respective representative keywords (*number of times each of the phrases appears within a query log, [0014], lines 6-8, [0041], lines 2-11; query log is associated with the number of searches made*), each of the representative keywords representing the other keywords associated with the representative keyword, which convey a same or similar meaning (*key phrases are associated with other key phrases with the same or similar meaning, such as Britney, Brittney, [0035], lines 10-13, [0036], lines 1-6*);

means for receiving a selection of a representative category associated with a predetermined keyword group from a manager (*search for concept, such as Tiger Woods, associated with the key phrases, such as tiger, tigr, [0013], [0039], lines 4-8; it would have been obvious to associate the sever as manager, [0059], lines 4-5, Fig 12, 1206*);

means for associating a representative keyword included in a first keyword group associated with a first representative category (*associate the key phrase with a category, such as associating key phrase tiger with the category of Tiger Woods, [0013], [0039], lines 4-10*),

means for receiving a search request from a user through a communication network, the search request including a search keyword (*receive query from a user, and the query includes key phrase, [0039], lines 1-3*);

means for searching the category classification database for a representative category associated with a keyword group including the search keyword (*the search engine searches the database for related concepts by textually matching the words of the query phrase against the key phrase of the concept, [0039], lines 4-7*), the means for searching the category classification database determining at least one keyword group associated with the searched representative category (*a concept is said to match a query if the query matches the a key phrase and/or one or*

Art Unit: 2168

more words in the title and the key phrases may be matched in different ways, [0039], lines 16, [0041], lines 2-4); it would have been obvious to interpret that matching key phrase is associated with determining keyword groups associated with the searched category);

means for searching the keyword database for a keyword group associated with the searched representative category (*matching query with key phrases and/or one or more words associated with the concept, [0039], lines 8-16, [0051], lines 9-14; it would have been obvious to interpret that matching is associated with searching for key phrases*) and data indicative of a number of searches made using one or more representative keywords or other keywords associated with the respective representative keywords included in the searched keyword group (*number of times each of the phrases appears within a query log, [0014], lines 6-8, [0041], lines 2-11; query is associated with the key phrases and query log is associated with the number of searches made for the key phrase*);

means for updating the data indicative of a number of searches made using a representative keyword corresponding to the search keyword or other keywords associated with the representative keyword response to the search request from the user (*the query can also be added to the query log for future periodic use of popularity tool, [0058], lines 5-8; it is interpreted that the query is associated with the key phrase and the number of key phrases used for searching, [0014]; also adding query to the query log is interpreted as updating the data indicative of searches made*).

Although Chandrasekar discloses associated with a second category to reflect current societal interest, independent of statistical data of previous searches (*predicatively models for the popularity of concepts to reflect social or demographic reasons, which are independent of*

Art Unit: 2168

historical log of queries, such as predicting super ball will be a popular search query in the coming month, [0042]);

means for providing the user with information showing popularity of concepts related to the search request based, at least in part, upon the data indicative of the respective number of searches made using the respective representative keywords or other keywords associated with the respective representative keywords included in the searched keyword group (*determine the popularity of each concept based on the number of different query phrases with in the query log that match the key phrases of the concept, and the number of times each of the these query phrases appears within the query log, [0014], lines 1-8, [0037], lines 5-13); and*

determine the popularity of a key phrase (key phrase is interpreted as the keyword, [0017], lines 9-10, [0047] lines 8-11);

Chandrasekar does not explicitly discloses

with a second keyword group associated with a second representative category to reflect current societal interest, independent of statistical data of previous searches;

means for providing the user with information showing popularity of keywords related to the search request based, at least in part, upon the data indicative of the respective number of searches made using the respective representative keywords or other keywords associated with the respective representative keywords included in the searched keyword group.

However, Yoo discloses means for providing the user with information showing popularity of keywords related to the search request based (*provide buzz values, the buss value represents the level of interest and trend, Col 14, lines 6-9 & 45-51, Fig 9-14; it is interpreted that the buzz value is associated with the popularity related to the search term*), at least in part,

Art Unit: 2168

upon the data indicative of the respective number of searches made using the respective representative keywords or other keywords associated with the respective representative keywords included in the searched keyword group (*determine popularity based on the statistical measurement of the terms, and statistical measurement corresponds to the data indicative number of searches made, Col. 5, lines 1-5, Col. 13, lines 40-42*).

It would have been obvious to one ordinary skill in the art at the time of the invention to modify and incorporate the term count techniques of Yoo in the system of Chandrasekar in order to provide more sophisticated and informative regarding popular trends (*Yoo, Col. 4, lines 20-24*).

The combination of Chandrasekar and Yoo does not explicitly disclose with a second keyword group associated with a second representative category to reflect current societal interest, independent of statistical data of previous searches.

However, Piscitello discloses with a second keyword group associated with a second representative category to reflect current societal interest, independent of statistical data of previous searches (*associate links that matches user's intention, and the links includes current events and news that correspond to the user query, Col. 4, lines 16-23 & 49-50, Fig 2, 216; it would have been obvious to interpret that the keyword group that includes with the search query "Stanford" is associated with a current category that correspond to the search query, and the current category is independent of the statistical data of previous searches*).

It would have been obvious to one ordinary skill in the art at the time of the invention to modify and incorporate the current category determination techniques of Piscitello in the system

Art Unit: 2168

of Chandrasekar and Yoo in order to provide relevant search results to the user (*Piscitello, Col. 1, lines 37-42*).

With respect to claim 30, Chandrasekar discloses a search service method (*method for refining a user query, [0011], lines 1-2*) comprising the steps of:

maintaining at least one representative category associated with one or more predetermined keyword groups in a category classification database (*key phrases, such as tiger & tigr, are associated with concepts, such as Tiger Woods and animal tiger, [0013], [0035], lines 5- 9; key phrases are interpreted as keyword groups, concept is interpreted as category, and it would have been obvious to interpret that the concepts are stored in a concept database in the search engine database*), each of the predetermined keyword groups including one or more representative keywords and other keywords associated with the respective representative keywords (*key phrases include one or more words are phrases of words, [0017], lines 2-4, [0035], lines 10-13, [0036], lines 1-6; some words in the key phrases, such as Britney, can be interpreted as representative keyword*);

upon receipt of instructions from a manager, associating a representative keyword included in a first keyword group associated with a first representative category (*search for concept, such as Tiger Woods, associated with the key phrases, such as tiger, tigr, [0013], [0039], lines 4-8; it would have been obvious to associate the server as manager, [0059], lines 4-5, Fig 12, 1206*);

maintaining at least one predetermined keyword group (*key phrases associated with the concept, [0035], lines 6-13, [0036]; the key phrases are interpreted as the keyword group*) and

Art Unit: 2168

data indicative of a number of searches made using one or more representative keyword or other keywords associated with the respective representative keywords (*number of times each of the phrases appears within a query log, [0014], lines 6-8, [0041], lines 2-11; query log is associated with the number of searches made*), in a keyword database (*it would have been obvious to interpret that key phrases and query log are stored in a database, [0059], Fig 12, 1112*), each of the representative keywords representing the other keywords associated with the respective representative keyword, which convey a same or similar meaning (*key phrases are associated with other key phrases with the same or similar meaning, such as Britney, Brittney, [0035], lines 10-13, [0036], lines 1-6*);

receiving a search request from a user through a communication network, the search request including a search keyword (*receive query from a user, and the query includes key phrase, [0039], lines 1-3*);

searching the category classification database for a representative category associated with a keyword group, including the search keyword (*the search engine searches the database for related concepts by textually matching the words of the query phrase against the key phrase of the concept, [0039], lines 4-7; concept is interpreted as a category*);

searching the keyword database for a keyword group associated with the searched representative category (*matching query with key phrases and/or one or more words associated with the concept, [0039], lines 8-16, [0051], lines 9-14; it would have been obvious to interpret that matching is associated with searching for key phrases*) and data indicative of a number of searches made using one or more representative keywords or other keywords associated with the respective representative keywords included in the searched keyword group (*number of times*

Art Unit: 2168

each of the phrases appears within a query log, [0014], lines 6-8, [0041], lines 2-11; query is associated with the key phrases and query log is associated with the number of searches made for the key phrase);

updating the data indicative of the number of searches made using a representative keyword corresponding to the search keyword or other keywords associated with the representative keyword in response to the search request from the user *(the query can also be added to the query log for future periodic use of popularity tool, [0058], lines 5-8; it is interpreted that the query is associated with the key phrase and the number of key phrases used for searching, [0014]; also adding query to the query log is interpreted as updating the data indicative of searches made).*

Although Chandrasekar discloses associated with a second category to reflect current societal interest, independent of statistical data of previous searches *(predicatively models for the popularity of concepts to reflect social or demographic reasons, which are independent of historical log of queries, such as predicting super ball will be a popular search query in the coming month, [0042]);*

means for providing the user with information showing popularity of concepts related to the search request based, at least in part, upon the data indicative of the respective number of searches made using the respective representative keywords or other keywords associated with the respective representative keywords included in the searched keyword group *(determine the popularity of each concept based on the number of different query phrases with in the query log that match the key phrases of the concept, and the number of times each of the these query phrases appears within the query log, [0014], lines 1-8, [0037], lines 5-13); and*

Art Unit: 2168

determine the popularity of a key phrase (*key phrase is interpreted as the keyword, [0017], lines 9-10, [0047] lines 8-11*);

Chandrasekar does not explicitly disclose

with a second keyword group associated with a second representative category to reflect current societal interest, independent of statistical data of previous searches;

providing the user with information showing popularity of keywords related to the search request based, at least in part, upon the data indicative of the respective number of searches made using the respective representative keywords or other keywords associated with the respective representative keywords included in the searched keyword group

However, Yoo discloses providing the user with information showing popularity of keywords related to the search request based (*provide buzz values, the buzz value represents the level of interest and trend, Col 14, lines 6-9 & 45-51, Fig 9-14; it is interpreted that the buzz value is associated with the popularity related to the search term*), at least in part, upon the data indicative of the respective number of searches made using the respective representative keywords or other keywords associated with the respective representative keywords included in the searched keyword group (*determine popularity based on the statistical measurement of the terms, and statistical measurement corresponds to the data indicative number of searches made, Col. 5, lines 1-5, Col. 13, lines 40-42*).

It would have been obvious to one ordinary skill in the art at the time of the invention to modify and incorporate the term count techniques of Yoo in the method of Chandrasekar in order to provide more sophisticated and informative regarding popular trends (*Yoo, Col. 4, lines 20-24*).

Art Unit: 2168

The combination of Chandrasekar and Yoo does not explicitly disclose with a second keyword group associated with a second representative category to reflect current societal interest, independent of statistical data of previous searches.

However, Piscitello discloses with a second keyword group associated with a second representative category to reflect current societal interest, independent of statistical data of previous searches (*associate links that matches user's intention, and the links includes current events and news that correspond to the user query, Col. 4, lines 16-23 & 49-50, Fig 2, 216; it would have been obvious to interpret that the keyword group that includes with the search query "Stanford" is associated with a current category that correspond to the search query, and the current category is independent of the statistical data of previous searches*).

It would have been obvious to one ordinary skill in the art at the time of the invention to modify and incorporate the current category determination techniques of Piscitello in the method of Chandrasekar and Yoo in order to provide relevant search results to the user (*Piscitello, Col. 1, lines 37-42*).

With respect to claim 35, Chandrasekar discloses one or more storage media having stored thereon a computer program that, when executed by one or more processors (*system for refining a user query, [0011], lines 1-2; the system includes storage media and processor, Fig 13*), causes the one or more processors to perform acts including:

maintaining at least one representative category associated with one or more predetermined keyword groups in a category classification database (*key phrases, such as tiger & tigr, are associated with concepts, such as Tiger Woods and animal tiger, [0013], [0035]*,

Art Unit: 2168

lines 5- 9; key phrases are interpreted as keyword groups, concept is interpreted as category, and it would have been obvious to interpret that the concepts are stored in a concept database in the search engine database), each of the predetermined keyword groups including one or more representative keywords and other keywords associated with the respective representative keywords (key phrases include one or more words are phrases of words, [0017], lines 2-4, [0035], lines 10-13, [0036], lines 1-6; some words in the key phrases, such as Britney, can be interpreted as representative keyword);

upon receipt of instructions from a manager, associating a representative keyword included in a first keyword group associated with a first representative category (*search for concept, such as Tiger Woods, associated with the key phrases, such as tiger, tigr, [0013], [0039], lines 4-8; it would have been obvious to associate the server as manager, [0059], lines 4-5, Fig 12, 1206);*

maintaining at least one predetermined keyword group (*key phrases associated with the concept, [0035], lines 6-13, [0036]; the key phrases are interpreted as the keyword group*) and data indicative of a number of searches made using one or more representative keyword or other keywords associated with the respective representative keywords (*number of times each of the phrases appears within a query log, [0014], lines 6-8, [0041], lines 2-11; query log is associated with the number of searches made), in a keyword database (it would have been obvious to interpret that key phrases and query log are stored in a database, [0059], Fig 12, 1112), each of the representative keywords representing the other keywords associated with the respective representative keyword, which convey a same or similar meaning (key phrases are associated*

Art Unit: 2168

with other key phrases with the same or similar meaning, such as Britney, Brittney,[0035], lines 10-13, [0036], lines 1-6);

receiving a search request from a user through a communication network, the search request including a search keyword (*receive query from a user, and the query includes key phrase, [0039], lines 1-3);*

searching the category classification database for a representative category associated with a keyword group including the search keyword (*the search engine searches the database for related concepts by textually matching the words of the query phrase against the key phrase of the concept, [0039], lines 4-7; concept is interpreted as a category);*

searching the keyword database for a keyword group associated with the searched representative category (*matching query with key phrases and/or one or more words associated with the concept,[0039], lines 8-16, [0051], lines 9-14; it would have been obvious to interpret that matching is associated with searching for key phrases*) and data indicative of a number of searches made using one or more representative keywords or other keywords associated with the respective representative keywords included in the searched keyword group (*number of times each of the phrases appears within a query log, [0014], lines 6-8, [0041], lines 2-11; query is associated with the key phrases and query log is associated with the number of searches made for the key phrase);*

updating the data indicative of the number of searches made using a representative keyword corresponding to the search keyword or other keywords associated with the representative keyword group in response to the search request from the user *the query can also be added to the query log for future periodic use of popularity tool, [0058], lines 5-8; it is*

Art Unit: 2168

interpreted that the query is associated with the key phrase and the number of key phrases used for searching, [0014]; also adding query to the query log is interpreted as updating the data indicative of searches made).

Although Chandrasekar discloses associated with a second category to reflect current societal interest, independent of statistical data of previous searches (*predicatively models for the popularity of concepts to reflect social or demographic reasons, which are independent of historical log of queries, such as predicting super ball will be a popular search query in the coming month, [0042]*);

means for providing the user with information showing popularity of concepts related to the search request based, at least in part, upon the data indicative of the respective number of searches made using the respective representative keywords or other keywords associated with the respective representative keywords included in the searched keyword group (*determine the popularity of each concept based on the number of different query phrases with in the query log that match the key phrases of the concept, and the number of times each of the these query phrases appears within the query log, [0014], lines 1-8, [0037], lines 5-13*); and

determine the popularity of a key phrase (*key phrase is interpreted as the keyword, [0017], lines 9-10, [0047] lines 8-11*);

Chandrasekar does not explicitly discloses with a second keyword group associated with a second representative category to reflect current societal interest, independent of statistical data of previous searches;

providing the user with information showing popularity of keywords related to the search request based, at least in part, upon the data indicative of the respective number of searches made

Art Unit: 2168

using the respective representative keywords or other keywords associated with the respective representative keywords included in the searched keyword group.

However, Yoo discloses providing the user with information showing popularity of keywords related to the search request based *(provide buzz values, the buss value represents the level of interest and trend, Col 14, lines 6-9 & 45-51, Fig 9-14; it is interpreted that the buzz value is associated with the popularity related to the search term)*, at least in part, upon the data indicative of the respective number of searches made using the respective representative keywords or other keywords associated with the respective representative keywords included in the searched keyword group *(determine popularity based on the statistical measurement of the terms, and statistical measurement corresponds to the data indicative number of searches made, Col. 5, lines 1-5, Col. 13, lines 40-42)*.

It would have been obvious to one ordinary skill in the art at the time of the invention to modify and incorporate the term count techniques of Yoo in the system of Chandrasekar in order to provide more sophisticated and informative regarding popular trends *(Yoo, Col. 4, lines 20-24)*.

The combination of Chandrasekar and Yoo does not explicitly discloses with a second keyword group associated with a second representative category to reflect current societal interest, independent of statistical data of previous searches

However, Piscitello with a second keyword group associated with a second representative category to reflect current societal interest, independent of statistical data of previous searches *(associate links that matches user's intention, and the links includes current events and news that correspond to the user query, Col. 4, lines 16-23 & 49-50, Fig 2, 216; it would have been*

Art Unit: 2168

obvious to interpret that the keyword group that includes with the search query "Stanford" is associated with a current category that correspond to the search query, and the current category is independent of the statistical data of previous searches).

It would have been obvious to one ordinary skill in the art at the time of the invention to modify and incorporate the current category determination techniques of Piscitello in the system of Chandrasekar and Yoo in order to provide relevant search results to the user (*Piscitello, Col. 1, lines 37-42*).

With respect to claims 22, 31 and 36, the claims are rejected for the same reasons as claims 21, 30 and 35 above.

Even though Chandrasekar discloses determine the popularity of a key phrase (*key phrase is interpreted as the keyword, [0017], lines 9-10, [0047] lines 8-11*); and

wherein the information showing popularity of the searched concepts shows popularity ranks of the concept (*the matching concepts are sorted by and in descending order of their popularity, and then outputted, [0051], lines 18-22*);

Chandrasekar does not explicitly disclose wherein the information showing popularity of the searched keyword shows popularity ranks of the at least one keyword group associated with the searched representative category.

However, Yoo discloses wherein the information showing popularity of the searched keyword shows popularity ranks of the at least one keyword group associated with the searched

Art Unit: 2168

representative category (*buzz report with scores information shows the popularity ranks of terms associated with the category, Col. 15, lines 7-19, Fig 9-13*).

With respect to claims 23, 32, and 37, the claims are rejected for the same reasons as claims 21, 30 and 35 above.

Even though Chandrasekar discloses determine the popularity of a key phrase (*key phrase is interpreted as the keyword, [0017], lines 9-10, [0047] lines 8-11*); and

wherein the information showing popularity of the searched concept shows a portion of the concept based upon the popularity of the searched concept (*the matching concepts are sorted by and in descending order of their popularity, and then outputted, [0051], lines 18-22*);

Chandrasekar does not explicitly disclose wherein the information showing popularity of the searched keyword shows a portion of the at least one keyword group associated with the searched representative category based upon the popularity of the at least one keyword group associated with the searched representative category.

However, Yoo discloses wherein the information showing popularity of the searched keyword shows a portion of the at least one keyword group associated with the searched representative category based upon the popularity of the at least one keyword group associated with the searched representative category (*buzz report with scores information shows the popularity ranks of terms associated with the category, Col. 15, lines 7-19, Fig 9-13*).

Art Unit: 2168

With respect to claims 24, and 33, the claims are rejected for the same reasons as claims 21, 30 and 35 above.

Even though Chandrasekar discloses determine the popularity of a key phrase (*key phrase is interpreted as the keyword, [0017], lines 9-10, [0047] lines 8-11*); and

wherein the information showing popularity of the searched concepts shows popularity ranks of the concept (*the matching concepts are sorted by and in descending order of their popularity, and then outputted, [0051], lines 18-22*);

Chandrasekar does not explicitly disclose wherein the information showing popularity of the searched keyword shows changes in the popularity of the searched keyword in association with the other keywords of the at least one keyword group associated with the searched representative category.

However, Yoo discloses wherein the information showing popularity of the searched keyword shows changes in the popularity of the searched keyword in association with the other keywords of the at least one keyword group associated with the searched representative category (*popularity information shows the changes in the popularity of searched terms, Fig 9-13*).

Response to Arguments

6. Applicant's arguments filed on 3/10/2009, with respect to amended claims 21, 30, 35, cancelled claimed 25-29, 34, 38 have been fully considered, and are moot in view of the new ground(s) of rejection.

Applicant stated that the amended limitations of “associating a representative keyword included in a first keyword group associated with a first representative category, with a second keyword group associated with a second representative category to reflect current societal interest, independent of statistical data of previous searches” is support by the specification in paragraph [0033]. However, based on the substitute specification filed on 3/17/2008, it appears that the amended claim limitation of “independent of statistical data of previous searches” is neither explicitly, or implicitly nor sufficiently describe in the specification.

Based on the Applicant’s remarks in pages 16-17, the representative keyword is included in both the first keyword group and the second keyword group, However, according to the limitations of “associating a representative keyword included in a first keyword group associated with a first representative category, with a second keyword group associated with a second representative category to reflect current societal interest, independent of statistical data of previous searches” recited in claim 21 (lines 16-19), claim 30 (lines 8-11), and claim 35 (lines 11-14), it appears that the representative keyword is not necessary included in the first keyword group and in the second group because the representative keyword is it's merely associated with second keyword group.

Applicant argued that the previously cited references, particularly Rajaraman, fail to discloses the amended limitations of " associating a representative keyword included in a first keyword group associated with a first representative category, with a second keyword group associated with a second representative category to reflect current societal interest, independent

Art Unit: 2168

of statistical data of previous searches” recited in claim 21 (lines 16-19), claim 30 (lines 8-11), - and claim 35 (lines 11-14) in pages 17-29 of the remarks. However, based on further consideration and searches conducted, two new references, Chandrasekar and Piscitello, have applied with the previously cited reference, Yoo, to address the amended claimed invention. Chandrasekar discloses associating with concepts to reflect current societal interest using predicatively models to determine the popularity of concepts to reflect social or demographic reasons, which are independent of historical log of queries, in [0042]; and Piscitello discloses associating links that matches user’s intention, and the links includes current events and news that correspond to the user query, in Col. 4, lines 16-23 & 49-50, Fig 2, 216; it would have been reasonable and obvious for one ordinary skilled in the art to associate the search query “Stanford” with the claimed representative keyword, and to interpret that the keyword group that includes the search query “Stanford” is associated with a current category that correspond to the search query, and the current category is independent of the statistical data of previous searches. Because Chandrasekar, Yoo and Piscitello are all directed to provide relevant information to the user, and all of them are from the same field of endeavor, it would have been obvious for one ordinary skilled in the art to combine their teachings in order to provide relevant search results to the user.

Thus, is it believed that all claimed features have properly addressed, see the claim analysis above for detail.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHELLE OWYANG whose telephone number is (571)270-1254. The examiner can normally be reached on Monday-Friday (Alternate Fridays Off): 8am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TIM VO can be reached on 571-272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2168

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tim T. Vo/
Supervisory Patent Examiner, Art Unit
2168

/M. O./
Examiner, Art Unit 2168

/S. L./, May 28, 2009